# 10/516409

#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization International Bureau



#### ) (1881 - 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 18

## (43) International Publication Date 18 December 2003 (18.12.2003)

#### **PCT**

# (10) International Publication Number WO 03/104099 A1

- (51) International Patent Classification7: B65D 33/34, 33/04, 81/05, 25/10, 21/032, B65B 1/04, 3/04, 5/08, B65G 47/00, G01M 3/38
- (21) International Application Number: PCT/AU03/00697
- (22) International Filing Date: 4 June 2003 (04.06.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: PS 2829

7 June 2002 (07.06.2002) AU

- (71) Applicant (for all designated States except US): PAK TECHNOLOGIES GROUP PTY LTD [AU/AU]; 101 Tulip Street, Cheltenham, Victoria 3192 (AU).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LAING, Robert, James [AU/AU]; Unit 1, 9 Muir Street, Hawthorn, Victoria 3122 (AU). RUSSELL, Lloyd, A [AU/AU]; 3 Laurie Road, Dural, New South Wales 2158 (AU).

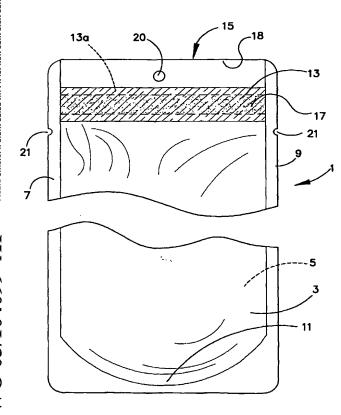
- (74) Agent: GRIFFITH HACK; 509 St Kilda Road, MEL-BOURNE, Victoria 3004 (AU).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report

[Continued on next page]

(54) Title FLEXIBLE POUCH, FILLING AND HEAT SEALING LINE FOR FLEXIBLE POUCHES, AND CONTAINERS FOR SUPPORTING AND MOVING THE FLEXIBLE POUCHES



(57) Abstract: A flexible pouch is provided which has panels (3, 5). A transparent strip (13) is provided on one of the panels and a translucent filter (13a) on the other. The panels are heat sealed together to close the pouch and the integrity of the heat seal is determined by shining ultraviolet light through the clear strip and inspecting the translucent filter (13a) so that imperfections in the seal can be identified. Pouches are packaged into containers (25) which include slots (50) and the full containers are stacked for transport through the plant for further processing in a retort, cooler or the like. This enables a large number of pouches to be easily transported through the plant for further processing after they have been filled and heat sealed. The heat sealing line may include a vision system, or the vision system may be a stand-alone item for inspecting the seal to determine the integrity of the seal. The vision system includes a UV light source for directing UV light through the transparent strip and a camera for inspecting the translucent filter (13a) to obtain an image of the filter (13a). The image is processed to identify dark regions which enable the integrity of the seal to be determined

WO 03/104099 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.